

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-18 (Cancelled)

Claim 19 (Newly Presented): An image forming apparatus, comprising:
an image carrier, wherein the image carrier has a first end side and a second end side on opposite ends of the image carrier;
a toner storing device disposed adjacent to the image carrier;
a fixing device; and
a cooling device, wherein the cooling device comprises an airflow path in which air enters the image carrier through the first end side of the image carrier, flows through the image carrier, and makes a U-turn on the second end side of the image carrier, and flows through a space between the toner storing device and the fixing device, and returns to a position on the first end side of the image carrier in a main body of the image forming apparatus.

Claim 20 (Newly Presented): The image forming apparatus according to claim 19, wherein the cooling device comprises a duct disposed in the space between the toner storing device and the fixing device, wherein an opening of the duct is directed toward the toner storing device, and wherein a part of the airflow path is formed in the duct by covering the opening of the duct by the outside of the toner storing device.

Claim 21 (Newly Presented): The image forming apparatus according to claim 19, wherein the cooling device further comprises a fan at a position where the airflow path makes a U-turn.

Claim 22 (Newly Presented): The image forming apparatus according to claim 21, further comprising a control device, wherein the control device at least controls the operation of the fan based on a fixing temperature of the fixing device.

Claim 23 (Newly Presented): The image forming apparatus according to claim 21, further comprising a control device, wherein the control device at least controls the operation of the fan based on a temperature in the toner storing device.

Claim 24 (Newly Presented): An image forming apparatus, comprising:
image carrying means for carrying a latent image on the image carrying means, wherein the image carrying means comprises a first end side and a second end side on opposite ends of the image carrying means;
toner storing means for storing toner disposed adjacent to the image carrying means;
fixing means for fixing the toner image on a transfer material by heat, and
cooling means for cooling the inside of a main body of the image forming apparatus, wherein the cooling means comprises an airflow path in which air enters the image carrying means through the first end side of the image carrying means, flows through the image carrying means, and makes a U-turn on the second end side of the image carrying means, and flows through a space between the toner storing means and the fixing means, and returns to a position on the first end side of the image carrying means in a main body of the image forming apparatus.

Claim 25 (Newly Presented): The image forming apparatus according to claim 24, wherein the cooling means comprises a duct disposed in the space between the toner storing means and the fixing means, wherein an opening of the duct is directed toward the toner

storing means, and wherein a part of the airflow path is formed in the duct by covering the opening of the duct by the outside of the toner storing means.

Claim 26 (Newly Presented): The image forming apparatus according to claim 24, wherein the cooling means further comprises a fan at a position where the airflow path makes a U-turn.

Claim 27 (Newly Presented): The image forming apparatus according to claim 26, further comprising a control means for controlling the fan, wherein the control means controls the operation of the fan based on a fixing temperature of the fixing means.

Claim 28 (Newly Presented): The image forming apparatus according to claim 26, further comprising a control means for controlling the fan, wherein the control means controls the operation of the fan based on a temperature in the toner storing means.

Claim 29 (Newly Presented): A method of cooling an inside of a main body of an image forming apparatus, comprising;

flowing air into an image carrier from a first end side of the image carrier;

causing the air to make a U-turn in a U-turn duct;

flowing the air through a space between a toner storing device and a fixing device;

and

returning the air to a position on the first end side of the image carrier in a main body of the image forming apparatus.

Claim 30 (Newly Presented): The method according to claim 29, further comprising providing a fan at a position where the air makes a U-turn.

Claim 31 (Newly Presented): The method according to claim 30, further comprising controlling the fan to operate based on a fixing temperature of the fixing device.

Claim 32 (Newly Presented): The method according to claim 30, further comprising controlling the fan to operate based on a temperature in the toner storing device.

Claim 33 (Newly Presented): An image forming apparatus, comprising:
an image carrier comprising a first end side and a second end side;
a toner storing device;
a fixing device; and
a cooling device, wherein the cooling device comprises an airflow path in which air enters the image carrier through the first end side of the image carrier, flows through the image carrier, and makes a U-turn on the second end side of the image carrier, and flows through a space between the toner storing device and the fixing device, and returns to a position on the first end side of the image carrier in a main body of the image forming apparatus.

Claim 34 (Newly Presented): An image forming apparatus according to Claim 19, wherein the image forming apparatus forms images having two or more colors.

Claim 35 (Newly Presented): The image forming apparatus according to Claim 19, wherein the image forming apparatus performs multi-functional image forming operations comprising at least one of copying, faxing, and printing operations.

Claim 36 (Newly Presented): The image forming apparatus according to Claim 24, wherein the image forming apparatus performs multi-functional image forming operations comprising at least one of copying, faxing, and printing operations.